In the claims:

- 1. (Cancelled)
- (New) A process to prepare nanostructured materials comprising;
 generating a plasma with an apparatus comprising an anodic column and a cathodic column;

introducing an oxidizing gas into the plasma;

injecting a precursor material into the plasma through at least one of the anodic and cathodic columns; and

recovering the nanostructured material.

- 3. (New) The process of claim 2, wherein the injection step comprises injecting the precursor material into the cathodic column through forced convection
- 4. (New) The process of claim 2, wherein the step of forming comprises introducing the oxidizing gas into an anodic column of a transferred electric arc.
- (New) The process of claim 2, wherein the step of forming comprises introducing the oxidizing gas into an anodic column of a free-burning electric arc.
- (New) The process of claim 2, further comprising injecting at least one of a quench and dilution stream.